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LISTING OF CLAIMS

1-7. (canceled)

- 8. (currently amended) A method of producing [[an]] <u>a Haemophilus</u> adhesion and penetration protein comprising:
- a) culturing a host cell transformed with an expressing expression vector comprising a nucleic acid encoding an Haemophilus adhesion and penetration protein, whose non-coding nucleic acid strand will hybridize to a nucleic acid strand having a coding sequence as shown in SEQ ID NO:1 under the high stringency conditions of washes at 0.1XSSC at 65°C for 2 hours; and
- b) expressing said nucleic acid to produce [[an]] a recombinant Haemophilus adhesion and penetration protein.

9-12. (canceled)

- 13. (new) The method of claim 8, wherein said nucleic acid has the sequence as shown in SEQ ID NO:1.
- 14. (new) The method of claim 8, wherein the recombinant *Haemophilus* adhesion and penetration protein has an amino acid sequence as shown in SEQ ID NO: 2.
- 15. (new) The method of claim 8, wherein said host cell is selected from the group consisting of yeast, bacteria, archebacteria, fungi, insect cells, and animal cells.
 - 16. (new) The method of claim 15, wherein said host cell is a bacteria cell.
- 17. (new) The method of claim 16, wherein said bacterial cell is selected from the group consisting of Bacillus subtilis, E. coli, Streptococcus cremoris, and Streptococcus lividans.
 - 18. (new) The method of claim 15, wherein said host cell is a yeast cell.
- 19. (new) The method of claim 18, wherein said yeast cell is selected from the group consisting of Saccharomyces cerevisiae, Candida albicans, Candida maltosa, Hansenula polymorpha,

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Kluyveromyces fragilis, Kluyveromyces lactis, Pichia quillerimondii, Pichia pastoris, Schizosaccharomyces pombe, and Yarrowia lipolytica.

- 20. (new) The method of claim 15, wherein said host cell is an insect cell.
- 21. (new) The method of claim 20, wherein said insect cell is a *Drosophlia melangaster* cell.
 - 22. (new) The method of claim 15, wherein said host cell is an animal cell.
- 23. (new) The method of claim 22, wherein said animal cell is a selected from the group consisting of Hela cells, immortalized mammalian myeloid cells and immortalized mammalian lymphoid cells.
- 24. (new) The method of claim 8, wherein said recombinant *Haemophilus* adhesion and penetration protein is secreted from said host cell.